



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
WASHINGTON, D.C. 20460

**MEMORANDUM**

DATE: 25-MAR-2002

SUBJECT: Organophosphates (OP) Pesticides With Meat, Milk, Poultry, and Egg (MMPE) Tolerances That Fall Under 40 CFR 180.6(a)(3). Follow-up of OPs Not Covered by HED Memos Dated 4/8/99 (DP Barcode D255005) and 6/2/99 (DP Barcode D256543). DP Barcode: D281439.

FROM: G. Jeffrey Herndon, Chemist  
Jennifer R. Tyler, Chemist  
Registration Action Branch 1 (RAB1)  
Health Effects Division (HED) (7509C)

TO: Karen Angulo  
Immediate Office (IO)  
Special Review and Reregistration Division (SRRD) (7508C)

and

Joseph Nevola  
Special Review Branch (SRB)  
SRRD (7508C)

**Background**

In a memo dated 4/8/99, HED compiled a list of OP pesticides with MMPE tolerances that may fall under 40 CFR 180.6(a)(3) (no reasonable expectation of finite residues); and, therefore, may be candidates for MMPE tolerance revocation (DP Barcode D255005). In a follow-up memo dated 6/2/99, HED determined that the following OPs can have one or more MMPE tolerances revoked under 40 CFR 180.6(a)(3) (Memo, G. Herndon and J. Rowell, 6/4/99; DP Barcode D256543):

azinphos-methyl, coumaphos, fenthion, isofenphos, methidathion, naled, phorate, profenophos, and sulprofos

In a memo dated 6/11/99, SRRD recommended that 105 MMPE tolerances can be considered reassessed, and can be revoked under 180.6(a)(3). The tolerances were revoked in Federal Register Notice dated 8/2/99.

### Detailed Considerations

The MMPE tolerances of the following OP pesticides were not reassessed in the aforementioned HED memos as the corresponding HED Residue Chemistry Reregistration Eligibility Decision (RED) Chapters had not yet been completed:

chlorpyrifos-methyl, diazinon, and malathion

Using information provided by SRRD (See Attachment 1) and the conclusions from the respective HED Chemistry RED Chapters and REDs, HED has evaluated these OPs and has determined the following:

Chlorpyrifos-methyl: No MMPE tolerances are addressed under 180.6(a)(3) (Memo, S. Levy, 11/11/99; D259808).

Diazinon: 2 tolerances (cattle mbyop and meat) are recommended for revocation under 180.6(a)(3) because they are no longer needed (Memo, D. Drew 12/6/00; D270422).

**A 40 CFR §180.6(a)(3) condition exists**, and tolerances for poultry, egg, and cattle meat and meat byproducts are recommended for revocation, and a milk tolerance is not required. Existing tolerances of 0.7 ppm in sheep tissues (meat and meat byproducts) are adequate. However, the existing tolerance for diazinon in sheep, fat should be raised from 0.7 ppm to 5.0 ppm.<sup>1</sup> The existing tolerance for cattle (beef) fat should be decreased from 0.7 ppm to 0.5 ppm. **The tolerance for cattle meat and meat by-products (mbyop) can be revoked as there is "no reasonable expectation of finite residues"** {Category 180.6(a)(3)} on cattle meat and mbyop from registered uses of cattle ear tags or from the consumption of diazinon treated feed items by cattle. However, based on the results of the cattle ear tag studies (MRIDs 45233501, 45233502, 45233503, and 45233504), the existing tolerance for cattle fat should be decreased from 0.7 ppm to 0.5 ppm. A diazinon tolerance for milk is not required as long as the ear tag labels maintain that use is for beef cattle and *non-lactating* dairy cattle, only.

Malathion: 20 tolerances (meat, milk, poultry and eggs) are recommended for revocation under 180.6(a)(3) because they are no longer needed (Memo, W. Smith 4/14/99; D239453).

The reregistration requirements for magnitude of the residue in meat, milk, poultry, and eggs will be considered fulfilled if the direct animal treatment uses of malathion to poultry and livestock animals are canceled<sup>2</sup> and the established tolerances for residues of malathion *per se* in eggs, milk, and animal tissues are revoked. Based on ruminant and poultry metabolism data at exaggerated feeding rates, **HED has determined that no tolerances are required for meat, milk, poultry and eggs** (Greybeard Committee decision on Malathion, 10/19/94).

### Conclusions/Recommendations

---

<sup>1</sup> The sheep dip use for diazinon is being retained outside the U.S. (e:mail from J. Herbert to G. Herndon dated 3/5/02).

<sup>2</sup> The direct animal treatment uses of malathion have since been cancelled (personal communication between P. Deschamp and G. Herndon on 3/5/02).

HED concludes that there is no expectation of finite residues in or on the MMPE commodities for the OPs listed in Table 1. Using the information provided by SRRD (See Attachment 1), HED recommends the 22 MMPE tolerances listed in Table 1 are no longer necessary resulting from the domestic uses. These tolerances are candidates for tolerance revocation under 180.6(a)(3) and can be considered reassessed.

**Table 1. OPs with MMPE Tolerances That Fall Under 40 CFR 180.6(a)(3).**

<b>Chemical</b>	<b>PC Code</b>	<b>CFR Cite</b>	<b>Document Reference</b>	<b>Tolerances to be Revoked</b>	<b>Reason</b>
Diazinon	057801	180.153	D270422 D. Drew 12/6/00	<b>2 tolerances</b> - cattle mbyop and meat	40 CFR 180.6(a)(3)
Malathion	057701	180.111	D239453 W. Smith 4/14/99	<b>20 tolerances</b> - meat, fat and mbyop of cattle, horses, goats, hogs, sheep and poultry; milk fat; eggs	40 CFR 180.6(a)(3)

**Attachments**

Attachment 1. Summary of current OP MMPE tolerances that have corresponding registrations for direct dermal uses (Revised 3/4/02).

cc: G. Herndon (RAB1); J. Tyler (RAB1)  
J. Tyler: 809B: CM#2: (703)305-5564: 7509C: RAB1

**ATTACHMENT 1**

<b>Tolerance Name</b>	<b>Tolerance CFR#</b>	<b>Pesticide</b>	<b>Comments</b>
Cattle, fat	180.108	Acephate	None
Cattle, MBYP	180.108	Acephate	None
Cattle, meat	180.108	Acephate	None
Eggs	180.108	Acephate	None
Goats, fat	180.108	Acephate	None
Goats, MBYP	180.108	Acephate	None
Goats, meat	180.108	Acephate	None
Hogs, fat	180.108	Acephate	None
Hogs, MBYP	180.108	Acephate	None
Hogs, meat	180.108	Acephate	None
Horses, fat	180.108	Acephate	None
Horses, MBYP	180.108	Acephate	None
Horses, meat	180.108	Acephate	None
Milk	180.108	Acephate	None
Poultry, fat	180.108	Acephate	None
Poultry, MBYP	180.108	Acephate	None
Poultry, meat	180.108	Acephate	None
Sheep, fat	180.108	Acephate	None
Sheep, MBYP	180.108	Acephate	None
Sheep, meat	180.108	Acephate	None
Cattle, fat	180.342	Chlorpyrifos	Ear tag
Cattle, MBYP	180.342	Chlorpyrifos	Ear tag
Cattle, meat	180.342	Chlorpyrifos	Ear tag
Eggs	180.342	Chlorpyrifos	None
Goats, fat	180.342	Chlorpyrifos	None
Goats, MBYP	180.342	Chlorpyrifos	None
Goats, meat	180.342	Chlorpyrifos	None
Hogs, fat	180.342	Chlorpyrifos	None
Hogs, MBYP	180.342	Chlorpyrifos	None
Hogs, meat	180.342	Chlorpyrifos	None
Horses, fat	180.342	Chlorpyrifos	None
Horses, MBYP	180.342	Chlorpyrifos	None
Horses, meat	180.342	Chlorpyrifos	None
Milk, fat	180.342	Chlorpyrifos	None
Milk, whole	180.342	Chlorpyrifos	None
Poultry, fat (inc. turkeys)	180.342	Chlorpyrifos	None
Poultry, MBYP (inc. turkeys)	180.342	Chlorpyrifos	None
Poultry, meat (inc. turkeys)	180.342	Chlorpyrifos	None
Sheep, fat	180.342	Chlorpyrifos	None
Sheep, MBYP	180.342	Chlorpyrifos	None
Sheep, meat	180.342	Chlorpyrifos	None
Cattle, fat	180.419	Chlorpyrifos methyl	None
Cattle, MBYP	180.419	Chlorpyrifos methyl	None
Cattle, meat	180.419	Chlorpyrifos methyl	None
Eggs	180.419	Chlorpyrifos methyl	None
Goats, fat	180.419	Chlorpyrifos methyl	None
Goats, MBYP	180.419	Chlorpyrifos methyl	None
Goats, meat	180.419	Chlorpyrifos methyl	None
Hogs, fat	180.419	Chlorpyrifos methyl	None

<b>Tolerance Name</b>	<b>Tolerance CFR#</b>	<b>Pesticide</b>	<b>Comments</b>
Hogs, MBYP	180.419	Chlorpyrifos methyl	None
Hogs, meat	180.419	Chlorpyrifos methyl	None
Horses, fat	180.419	Chlorpyrifos methyl	None
Horses, MBYP	180.419	Chlorpyrifos methyl	None
Horses, meat	180.419	Chlorpyrifos methyl	None
Milk	180.419	Chlorpyrifos methyl	None
Milk, fat	180.419	Chlorpyrifos methyl	None
Poultry, fat	180.419	Chlorpyrifos methyl	None
Poultry, MBYP	180.419	Chlorpyrifos methyl	None
Poultry, meat	180.419	Chlorpyrifos methyl	None
Sheep, fat	180.419	Chlorpyrifos methyl	None
Sheep, MBYP	180.419	Chlorpyrifos methyl	None
Sheep, meat	180.419	Chlorpyrifos methyl	None
Cattle, fat	180.189	Coumaphos	Direct Application
Cattle, MBYP	180.189	Coumaphos	Direct Application
Cattle, meat	180.189	Coumaphos	Direct Application
Goats, fat	180.189	Coumaphos	Direct application
Goats, MBYP	180.189	Coumaphos	Direct application
Goats, meat	180.189	Coumaphos	Direct application
Hogs, fat	180.189	Coumaphos	Direct application
Hogs, MBYP	180.189	Coumaphos	Direct application
Hogs, meat	180.189	Coumaphos	Direct application
Horses, fat	180.189	Coumaphos	Direct application
Horses, MBYP	180.189	Coumaphos	Direct application
Horses, meat	180.189	Coumaphos	Direct application
Milk, fat (=N in whole milk)	180.189	Coumaphos	None
Sheep, fat	180.189	Coumaphos	Direct application
Sheep, MBYP	180.189	Coumaphos	Direct application
Sheep, meat	180.189	Coumaphos	Direct application
Cattle, fat (pre-S)	180.153	Diazinon	Ear tag
Cattle, MBYP (Fat Basis)	180.153	Diazinon	Ear tag
Cattle, meat (Fat Basis)	180.153	Diazinon	Ear tag
Sheep, fat (pre-S)	180.153	Diazinon	None
Sheep, MBYP (fat basis)	180.153	Diazinon	None
Sheep, meat (fat basis)	180.153	Diazinon	None
Cattle, fat	180.235	Dichlorvos	Direct Application
Cattle, MBYP	180.235	Dichlorvos	Direct Application
Cattle, meat	180.235	Dichlorvos	Direct Application
Eggs	180.235	Dichlorvos	None
Goats, fat	180.235	Dichlorvos	Direct application
Goats, MBYP	180.235	Dichlorvos	Direct application
Goats, meat	180.235	Dichlorvos	Direct application
Hogs, fat	180.235	Dichlorvos	Direct application
Hogs, MBYP	180.235	Dichlorvos	Direct application
Hogs, meat	180.235	Dichlorvos	Direct application
Horses, fat	180.235	Dichlorvos	Direct application
Horses, MBYP	180.235	Dichlorvos	Direct application
Horses, meat	180.235	Dichlorvos	Direct application

<b>Tolerance Name</b>	<b>Tolerance CFR#</b>	<b>Pesticide</b>	<b>Comments</b>
Sheep, fat	180.235	Dichlorvos	Direct application
Sheep, MBYP	180.235	Dichlorvos	Direct application
Sheep, meat	180.235	Dichlorvos	Direct application
Milk	180.235	Dichlorvos	None
Poultry, fat	180.235	Dichlorvos	Direct application
Poultry, MBYP	180.235	Dichlorvos	Direct application
Poultry, meat	180.235	Dichlorvos	Direct application
Cattle, fat	180.204	Dimethoate	None
Cattle, MBYP	180.204	Dimethoate	None
Cattle, meat	180.204	Dimethoate	None
Eggs	180.204	Dimethoate	None
Goats, fat	180.204	Dimethoate	None
Goats, MBYP	180.204	Dimethoate	None
Goats, meat	180.204	Dimethoate	None
Hogs, fat	180.204	Dimethoate	None
Hogs, MBYP	180.204	Dimethoate	None
Hogs, meat	180.204	Dimethoate	None
Horses, fat	180.204	Dimethoate	None
Horses, MBYP	180.204	Dimethoate	None
Horses, meat	180.204	Dimethoate	None
Milk	180.204	Dimethoate	None
Poultry, fat	180.204	Dimethoate	None
Poultry, MBYP	180.204	Dimethoate	None
Poultry, meat	180.204	Dimethoate	None
Sheep, fat	180.204	Dimethoate	None
Sheep, MBYP	180.204	Dimethoate	None
Sheep, meat	180.204	Dimethoate	None
Cattle, fat	180.173	Ethion	Ear tag
Cattle, MBYP	180.173	Ethion	Ear tag
Cattle, meat (Fat Basis)	180.173	Ethion	Ear tag
Goats, fat	180.173	Ethion	None
Goats, MBYP	180.173	Ethion	None
Goats, meat	180.173	Ethion	None
Hogs, fat	180.173	Ethion	None
Hogs, MBYP	180.173	Ethion	None
Hogs, meat	180.173	Ethion	None
Horses, fat	180.173	Ethion	None
Horses, MBYP	180.173	Ethion	None
Horses, meat	180.173	Ethion	None
Milk, fat (=N in whole milk)	180.173	Ethion	None
Sheep, fat	180.173	Ethion	None
Sheep, MBYP	180.173	Ethion	None
Sheep, meat	180.173	Ethion	None
Cattle, fat	180.349	Fenamiphos	None
Cattle, MBYP	180.349	Fenamiphos	None
Cattle, meat	180.349	Fenamiphos	None
Goats, fat	180.349	Fenamiphos	None
Goats, MBYP	180.349	Fenamiphos	None

<b>Tolerance Name</b>	<b>Tolerance CFR#</b>	<b>Pesticide</b>	<b>Comments</b>
Goats, meat	180.349	Fenamiphos	None
Hogs, fat	180.349	Fenamiphos	None
Hogs, MBYP	180.349	Fenamiphos	None
Hogs, meat	180.349	Fenamiphos	None
Horses, fat	180.349	Fenamiphos	None
Horses, MBYP	180.349	Fenamiphos	None
Horses, meat	180.349	Fenamiphos	None
Milk	180.349	Fenamiphos	None
Sheep, fat	180.349	Fenamiphos	None
Sheep, MBYP	180.349	Fenamiphos	None
Sheep, meat	180.349	Fenamiphos	None
Cattle, fat	180.241	Fenthion	None
Cattle, MBYP	180.241	Fenthion	None
Cattle, meat	180.241	Fenthion	None
Hogs, fat	180.214	Fenthion	None
Hogs, MBYP	180.214	Fenthion	None
Hogs, meat	180.214	Fenthion	None
Milk	180.214	Fenthion	None
Eggs	180.111	Malathion	None
Goats, fat (pre-S)	180.111	Malathion	None
Goats, MBYP (pre-S)	180.111	Malathion	None
Goats, meat (pre-S)	180.111	Malathion	None
Hogs, fat (pre-S)	180.111	Malathion	None
Hogs, MBYP (pre-S)	180.111	Malathion	None
Hogs, meat (pre-S)	180.111	Malathion	None
Horses, fat (pre-S)	180.111	Malathion	None
Horses, MBYP (pre-S)	180.111	Malathion	None
Horses, meat (pre-S)	180.111	Malathion	None
Milk, fat (from appl. to dairy co)	180.111	Malathion	None
Poultry, fat (pre-S)	180.111	Malathion	None
Poultry, MBYP (pre-S)	180.111	Malathion	None
Poultry, meat (pre-S)	180.111	Malathion	None
Sheep, fat (pre-S)	180.111	Malathion	None
Sheep, MBYP (pre-S)	180.111	Malathion	None
Sheep, meat (pre-S)	180.111	Malathion	None
Cattle, fat (pre-S)	180.111	Malation	None
Cattle, MBYP (pre-S)	180.111	Malation	None
Cattle, meat (pre-S)	180.111	Malation	None
Cattle, fat	180.330	Oxydemeton methyl	None
Cattle, MBYP	180.330	Oxydemeton methyl	None
Cattle, meat	180.330	Oxydemeton methyl	None
Goats, fat	180.330	Oxydemeton methyl	None
Goats, MBYP	180.330	Oxydemeton methyl	None
Goats, meat	180.330	Oxydemeton methyl	None
Hogs, fat	180.330	Oxydemeton methyl	None
Hogs, MBYP	180.330	Oxydemeton methyl	None
Hogs, meat	180.330	Oxydemeton methyl	None
Horses, fat	180.330	Oxydemeton methyl	None

<b>Tolerance Name</b>	<b>Tolerance CFR#</b>	<b>Pesticide</b>	<b>Comments</b>
Horses, MBYP	180.330	Oxydemeton methyl	None
Horses, meat	180.330	Oxydemeton methyl	None
Milk	180.330	Oxydemeton methyl	None
Sheep, fat	180.330	Oxydemeton methyl	None
Sheep, MBYP	180.330	Oxydemeton methyl	None
Sheep, meat	180.330	Oxydemeton methyl	None
Cattle, fat	180.261	Phosmet	Direct application
Cattle, MBYP	180.261	Phosmet	Direct application
Cattle, meat	180.261	Phosmet	Direct application
Goats, fat	180.261	Phosmet	None
Goats, MBYP	180.261	Phosmet	None
Goats, meat	180.261	Phosmet	None
Hogs, fat	180.261	Phosmet	Direct application
Hogs, MBYP	180.261	Phosmet	Direct application
Hogs, meat	180.261	Phosmet	Direct application
Horses, fat	180.261	Phosmet	None
Horses, MBYP	180.261	Phosmet	None
Horses, meat	180.261	Phosmet	None
Sheep, fat	180.261	Phosmet	None
Sheep, MBYP	180.261	Phosmet	None
Sheep, meat	180.261	Phosmet	None
Cattle, fat	180.409	Pirimiphos methyl	None
Cattle, kidney	180.409	Pirimiphos methyl	None
Cattle, liver	180.409	Pirimiphos methyl	None
Cattle, MBYP	180.409	Pirimiphos methyl	None
Cattle, meat	180.409	Pirimiphos methyl	None
Eggs	180.409	Pirimiphos methyl	None
Goats, fat	180.409	Pirimiphos methyl	None
Goats, kidney	180.409	Pirimiphos methyl	None
Goats, liver	180.409	Pirimiphos methyl	None
Goats, MBYP	180.409	Pirimiphos methyl	None
Goats, meat	180.409	Pirimiphos methyl	None
Hogs, fat	180.409	Pirimiphos methyl	None
Hogs, kidney	180.409	Pirimiphos methyl	None
Hogs, liver	180.409	Pirimiphos methyl	None
Hogs, MBYP	180.409	Pirimiphos methyl	None
Hogs, meat	180.409	Pirimiphos methyl	None
Horses, fat	180.409	Pirimiphos methyl	None
Horses, kidney	180.409	Pirimiphos methyl	None
Horses, liver	180.409	Pirimiphos methyl	None
Horses, MBYP	180.409	Pirimiphos methyl	None
Horses, meat	180.409	Pirimiphos methyl	None
Milk, fat (0.01ppm (N) W milk)	180.409	Pirimiphos methyl	None
Poultry, fat	180.409	Pirimiphos methyl	None
Poultry, MBYP	180.409	Pirimiphos methyl	None
Poultry, meat	180.409	Pirimiphos methyl	None
Sheep, fat	180.409	Pirimiphos methyl	None
Sheep, kidney	180.409	Pirimiphos methyl	None
Sheep, liver	180.409	Pirimiphos methyl	None

<b>Tolerance Name</b>	<b>Tolerance CFR#</b>	<b>Pesticide</b>	<b>Comments</b>
Sheep, MBYP	180.409	Pirimiphos methyl	None
Sheep, meat	180.409	Pirimiphos methyl	None
Cattle, fat	180.404	Profenofos	None
Cattle, MBYP	180.404	Profenofos	None
Cattle, meat	180.404	Profenofos	None
Goats, fat	180.404	Profenofos	None
Goats, MBYP	180.404	Profenofos	None
Goats, meat	180.404	Profenofos	None
Hogs, meat	180.404	Profenofos	None
Hogs, fat	180.404	Profenofos	None
Hogs, MBYP	180.404	Profenofos	None
Horses, fat	180.404	Profenofos	None
Horses, MBYP	180.404	Profenofos	None
Horses, meat	180.404	Profenofos	None
Milk	180.404	Profenofos	None
Sheep, fat	180.404	Profenofos	None
Sheep, MBYP	180.404	Profenofos	None
Sheep, meat	180.404	Profenofos	None
Cattle, beef (all or unspec)	180.950	Tetrachlorvinphos	Direct application
Cattle, dairy (all or unspec)	180.950	Tetrachlorvinphos	Direct application
Cattle, fat	180.252	Tetrachlorvinphos	Direct application
Eggs	180.252	Tetrachlorvinphos	None
Goats, fat	180.252	Tetrachlorvinphos	None
Hogs (all or unspecified)	180.950	Tetrachlorvinphos	Direct application
Hogs, fat	180.252	Tetrachlorvinphos	Direct application
Horses (all or unspecified)	180.950	Tetrachlorvinphos	Direct application
Horses, fat	180.252	Tetrachlorvinphos	Direct application
Milk, fat	180.252	Tetrachlorvinphos	None
Poultry, fat	180.252	Tetrachlorvinphos	Direct application
Sheep, fat	180.252	Tetrachlorvinphos	None
Cattle, fat	180.272	Tribufos	None
Cattle, MBYP	180.272	Tribufos	None
Cattle, meat	180.272	Tribufos	None
Goats, fat	180.272	Tribufos	None
Goats, MBYP	180.272	Tribufos	None
Goats, meat	180.272	Tribufos	None
Milk	180.272	Tribufos	None
Sheep, fat	180.272	Tribufos	None
Sheep, MBYP	180.272	Tribufos	None
Sheep, meat	180.272	Tribufos	None
Cattle, fat	180.198	Trichlorfon	Direct application
Cattle, MBYP	180.198	Trichlorfon	Direct application
Cattle, meat	180.198	Trichlorfon	Direct application